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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,134	04/08/2004	Han Jun Sung	1594.1364	6666
21171	7590	03/14/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EARLY, MICHAEL JACOBY	
			ART UNIT	PAPER NUMBER
			3744	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/820,134	<b>Applicant(s)</b> SUNG ET AL.	
	<b>Examiner</b> Michael J. Early	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishikawa (U.S. 4,648,378).

Nishikawa discloses:

- a heating unit (3 – gas burner) generating heat (inherent);
- a grilling unit (2 – rectangular griddle) provided above the heating unit, with food placed on the grilling unit (inherent) (as seen in Figure 3);
- an air cooling unit (7 – electric-powered fan) connected to the grilling unit (as seen in Figures 2, 3);
- a housing (23 – top board) having at least one recess on an upper portion of the housing (as seen in Figure 3);
- a grill cooker (2 – rectangular griddle) removably seated in the at least one recess;
- a heating unit (3 – gas burner) generating heat (inherent);
- a grilling unit (2 – rectangular griddle) provided above the heating unit, with the food placed on the grilling unit (inherent) (as seen in Figure 3);
- an air cooling unit (7 – electric-powered fan) connected to the grilling unit to cool the grilling unit using air (see col. 2, lines 47 – 55).

### **Claim Rejections - 35 USC § 103**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

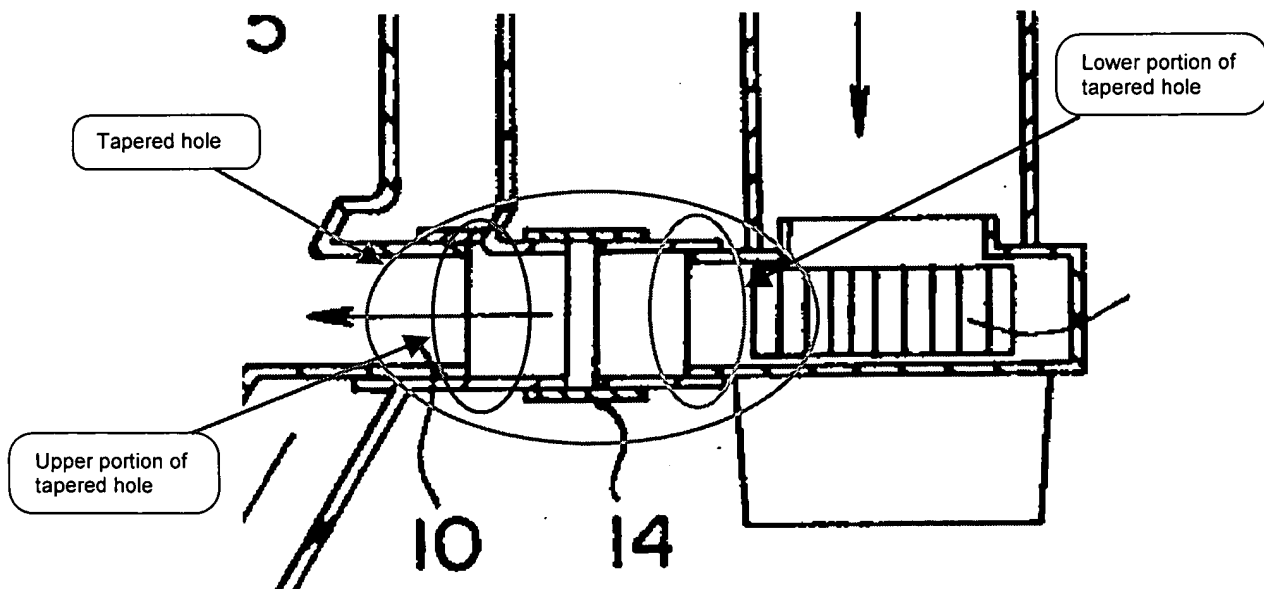
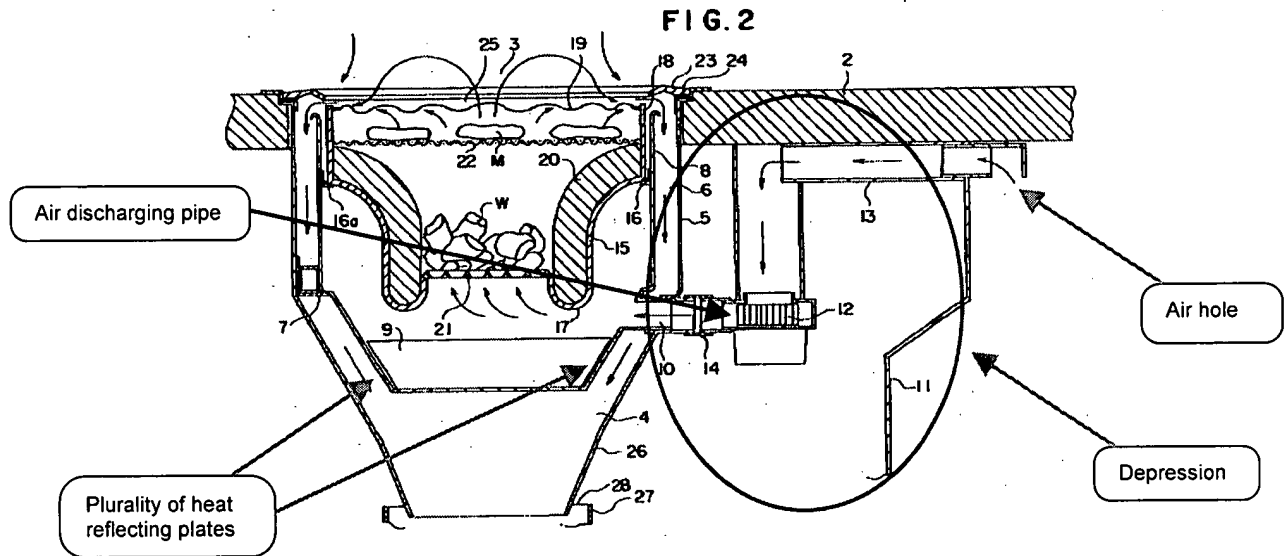
Claims 2 – 7, 10 – 12 and 14 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (U.S. 4,813,397) as applied to claim 1 above, and further in view of Nishikawa.

Yamada discloses:

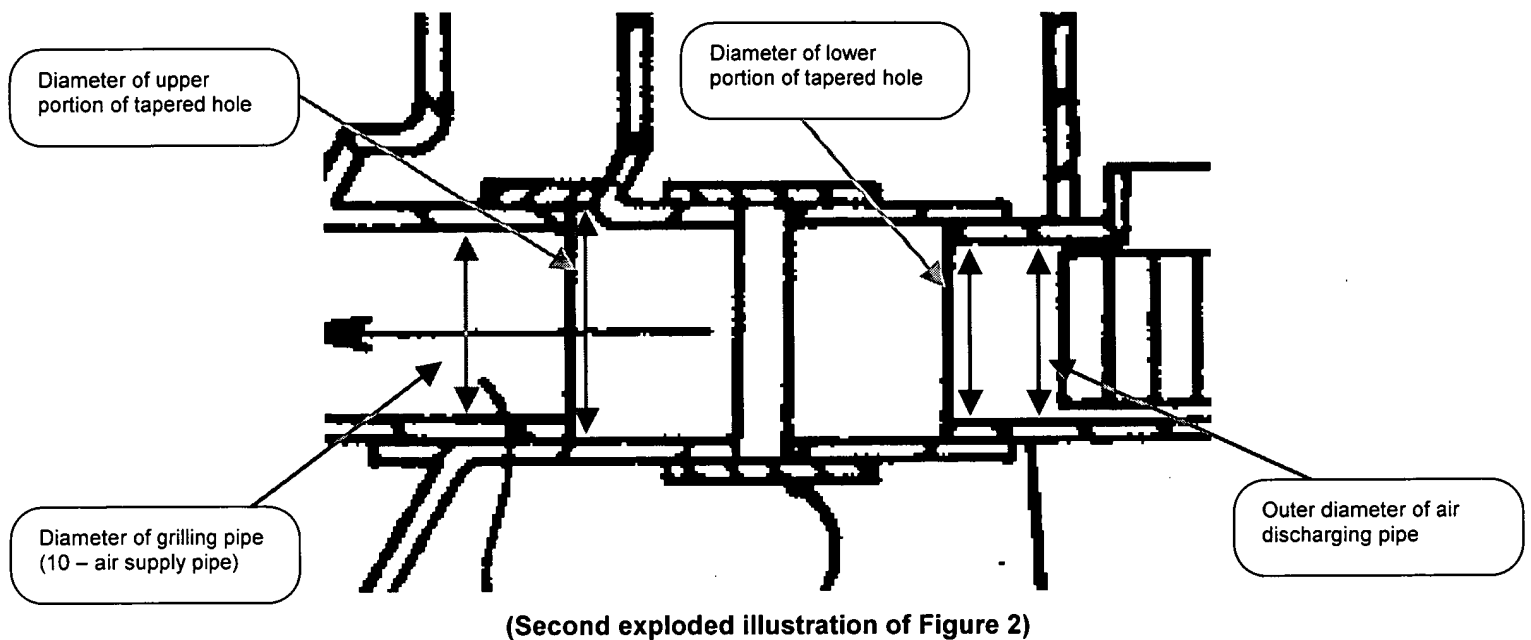
- a heating unit (W – charcoal) generating heat (obvious);
- a grilling unit (22 – gridiron or grill) provided above the heating unit, with food (M – broiling meat) (as seen in Figure 2);
- a grilling pipe (10 – air supply pipe);
- the air cooling unit comprises a blowing fan (12 – controllable blower) to blow air into the grilling pipe (as seen in Figure 2);
- the grilling pipe has an inlet at one end and an outlet at another end thereof (as seen in Figure 2);
- an air discharging pipe (as seen in the illustration of Figure 2 below) to connect the blowing fan to the inlet of the grilling pipe, the air entering the grilling pipe by the blowing fan blowing air into the air discharging pipe and being discharged to an area outside of the grilling pipe through the outlet of the grilling pipe (as seen in Figure 2);
- a cabinet (5 – outer box) that is open at a top thereof to form an opening (as seen in Figure 1);

- the cabinet contains the heating unit (as seen in Figure 2);
- the grilling unit is seated on the opening of the cabinet (as seen in Figures 1 and 2);
- the air cooling unit is provided on an outer surface of the cabinet (as seen in Figure 2);
- a connection member (14 – connecting pipe) provided on an upper portion of the cabinet to connect the air discharging pipe to the inlet of the grilling pipe (as seen in Figure 2);
- the connection member comprises a tapered hole (as seen in the first exploded illustration of Figure 2 below) that is tapered in a direction from a top to a bottom of the connection member, the inlet of the grilling pipe being connected to an upper portion of the tapered hole (as seen in the first exploded illustration of Figure 2 below), and the air discharging pipe being connected to a lower portion of the tapered hole (as seen in the first exploded illustration of Figure 2 below) to allow the grilling pipe to be removably connected to the air discharging pipe using the connection member (inherent);
- a frame (8 – inner box) that is provided on an upper portion of the grilling pipe along an edge of the grilling pipe (as seen in Figure 2);
- the outlet of the grilling pipe is placed at a predetermined position of the frame (as seen in Figure 2);
- a grease collecting unit (9 – dust pan), provided in the cabinet under the grilling unit (as seen in Figure 2);
- the heating unit comprises a plurality of heating units (there is a plurality of charcoal pieces) that are respectively arranged on opposite side surfaces of the cabinet (as seen in Figure 2), and the grease collecting unit comprises a plurality of heat reflecting plates that face the heating units (as seen in the illustration of Figure 2 below);
- the upper portion of the tapered hole has a diameter greater than an outer diameter of the grilling pipe (as seen in the second exploded illustration of Figure 2 below), the lower portion of the tapered hole has a diameter less

than the outer diameter of the grilling pipe (as seen in the second exploded illustration of Figure 2 below), and the diameter of the lower portion of the tapered hole is approximately equal to an outer diameter of the air discharging pipe (as seen in the second exploded illustration of Figure 2 below);



(First exploded illustration of Figure 2)



- a housing (11 – cabinet) having at least one recess on an upper portion of the housing (as seen in Figures 1, 2);
- a grill cooker (3 – roasting unit) removably seated in the at least one recess (as seen in Figures 1, 2) and comprising:
  - a heating unit (W – charcoal) generating heat (inherent);
  - a grilling unit (22 – gridiron or grill) provided above the heating unit, with the food (M – broiling meat) placed on the grilling unit (as seen in Figure 2);
- at least one grilling pipe (10 – air supply pipe) with an inlet and an outlet (as seen in Figure 2);
- the air cooling unit comprising:
  - a blowing fan (12 – controllable blower) to blow air (inherent);
  - an air discharging pipe (as seen in the first exploded illustration of Figure 2 above) to connect the blowing fan to the inlet of the grilling pipe, with air entering the grilling pipe by both the blowing fan and the air discharging pipe, and then being discharged to an outside of

the grilling pipe through the outlet of the grilling pipe (as seen in Figure 2);

- a cabinet (5 – outer box) that is open at a top thereof to form an opening (as seen in Figure 1);
- the cabinet contains the heating unit (as seen in Figure 2);
- the grilling unit is seated on the opening of the cabinet (as seen in Figures 1, 2);
- the air cooling unit is exteriorly provided on a lower portion of the cabinet (as seen in Figure 2);
- a connection member (14 – connecting pipe) provided on an upper portion of the cabinet to connect the air discharging pipe to the inlet of the grilling pipe (as seen in Figure 2), the connection member having a tapered hole (as seen in the first exploded illustration of Figure 2 above) that is tapered in a direction from a top to a bottom of the connection member, with the inlet of the grilling pipe being connected to an upper portion of the tapered hole (as seen in the first exploded illustration of Figure 2 above), and the air discharging pipe being connected to a lower portion of the tapered hole (as seen in the first exploded illustration of Figure 2 above) to allow the grilling pipe to be removably connected to the air discharging pipe using the connection member (inherent);
- a depression (as seen in the illustration of Figure 2 above) on a lower surface of the recess to receive the air cooling unit of the grill cooker, with an air hole (as seen in the illustration of Figure 2 above) on a surface of the depression to draw air into the air cooling unit to allow the grilling unit to be cooled by the air when the grill cooker is set in the recess, the air cooling unit being received in the depression (as seen in Figure 2);
- the air cooling unit extends downward from the lower portion of the cabinet and is received by the depression (as seen in Figure 2).

However, Yamada does not disclose:



- an air cooling unit connected to the grilling unit to cool the grilling unit using air;

As previously stated, Nishikawa discloses an electric-powered fan (7) that is connected to the grilling unit (2) (as seen in Figures 2, 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing roaster of Yamada by incorporating an electric-powered fan within the apparatus, as taught by Nishikawa, for the purpose of lowering the temperature of the area surrounding the apparatus (see col. 2, lines 47 – 59).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada in view of Nishikawa.

However, Yamada does not disclose:

- details related to the connect between the grilling pipe and tapered hole.

Yamada does disclose:

- the inlet of the grilling pipe is inserted into the tapered hole (as seen in Figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing roaster of Yamada in view of Nishikawa by joining the air supply pipe and tapered hole in a linear fashion for aesthetic purposes.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada in view of Nishikawa as applied to claim 6 above, and in further view of Estes (U.S. 4,252,106).

However, Yamada in view of Nishikawa does not disclose:

- details regarding a plurality of grilling pipes, a plurality of connection members and a plurality of air discharging pipes.

Estes teaches of a tubular grate system where air is circulated through a grate (see col. 1, lines 6 – 9). Further disclosed is that the apparatus is comprised of a blower (28), plenum (26) and grates (44, 46), which are connected to the apparatus' plenum via flange receptacles (50) (as seen in Figures 1, 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing roaster of Yamada in view of Nishikawa by incorporating a plurality of grates that are connected to a plenum via a plurality of flange receptacles, as taught by Estes, for the purpose of allowing more air to be circulated throughout the apparatus.

### **Response to Arguments**

Applicant's arguments with respect to claims 2, 3, 5 – 9 and 12 – 14 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that the rejections under 35 U.S.C. 103, the claims related to the combination of Lee et al. and Towery, would not have been obvious, because Lee et al. teach of the desirability of cooling and Towery teaches of the desirability of heating. This argument is not persuasive because both references rely on a form of heat transfer. So the rejection using the aforementioned prior art is still valid; however, due to the new grounds of rejection, this argument is irrelevant.

Applicant argues that the motivations listed for Towery were not problems mentioned in Lee et al. and thus, would not have motivated one of ordinary skill in the art to combine the references. This argument is persuasive; however, it is presently irrelevant due to the new grounds of rejection.

Applicant argues that the use of a tapered hole, connecting the grilling pipe and air discharging pipe, is advantageous in this application and thus, should not have been rejected as a design consideration. The applicant states that the tapered hole would have provided easy removal of the grilling pipe and also maintains the grilling pipe's inlet in position by gravity during operation. This argument is not persuasive because when viewing Figure 4, it appears that the inlet of the grilling pipe would remain in position regardless if the hole was tapered or not. The grilling pipe appears to be resting on top of the tapered hole and not inserted into the upper end of the hole. Also, the bottom surface of the tapered hole appears to be adjacent to, not inserted into, the inlet of the air discharging pipe. Furthermore, it appears that the inlet of the grilling pipe is maintained in place by the apparatus' frame instead of the tapered hole.

Applicant demands and states that the Examiner must produce an affidavit, under 37 C.F.R. § 1.104 (d)(2), in regard to the assertion that the cooker would perform equally well with a removably connected connection member that is of any shape, has diameters whose extremities are of equal size and is inserted into the grilling pipe. Since the new grounds of rejection obviate the Applicant's arguments, it is no longer deemed necessary to produce an affidavit based on the Examiner's knowledge in the art.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone

number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJE  
3/6/06

Michael J. Early  
Patent Examiner  
Art Unit 3744

  
**CHERYL TYLER**  
**SUPERVISORY PATENT EXAMINER**  
